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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,362	11/20/2001	Mark Auch	2001P20711US	1107

7590

07/31/2002

Attn: Elsa Keller, Legal Administrator
Siemens Corporation
Intellectual Property Department
186 Wood Avenue South
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EXAMINER

CLARK, JASMINE JHIHAN B

ART UNIT PAPER NUMBER

2815

DATE MAILED: 07/31/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/989,362

Applicant(s)

AUCH ET AL.

Examiner

Jasmine J B Clark

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) 43-55 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 56 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 8-11 is/are rejected.
- 7) ☒ Claim(s) 3-7, 12/1-12/11, 13/1-13/12, 14-33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Election

1. Claims 34-55 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group II, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 3.

2. It is suggested that Applicants cancel claims 34-55 in response to this office action.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Laine et al. (US 5,939,783).

Laine et al. reveal a structure of a device comprising a substrate with a device region (see Fig. 1 or 2); a cap 34 for encapsulating the device, the cap creates a cavity over the device region; spacer particles 25 fixed to a surface of the device region to support the cap.

Concerning claim 2, wherein the device region comprises one cell, please see Fig. 1 or 2.

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Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 1 and 2 above, and further in view of Chen et al. (US 6,260,264 B1).

As per the above discussion, Laine et al teach having the spacer particles 25 between the cap and the substrate, wherein the particles is made of conductive solder (col. 5, line 8). However, Laine et al fail to teach having the particles coated with a layer of adhesive. Chen et al teach coating the spacer particles 210 with a layer of adhesive 214 (see column 9, lines 23-24).

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Concerning claims 9-11, wherein the adhesive layer comprises thermal curable material as claimed in claim 9, for example. It would have been obvious to employ, for example, thermal curable material, ultraviolet material, and hot melt material for the adhesive layer as claimed, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Allowable Subject Matter

5. Claims 3-7, 12/1-12/11, 13/1-13/11, 14-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claim 56 is allowed.

The following is an examiner's statement of reasons for allowance: the applied references fail to teach and/or suggest including a sealing dam surrounding the device region; a cap supported by the sealing dam; a sealing region abutting an outer surface of the sealing dam; and an adhesive located in the sealing region, the adhesive hermetically sealing the device, wherein the sealing dam reduces a sealing width of the device.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

7. The references are cited and should be carefully considered: Higashi et al. (US 5,777,386), Appelt et al. (US 5,900,675), Melton et al. (US 5,844,315), Venkateshwaran et al. (US 6,339,254 B1), Poetzinger (US 5,724,230), Hultmark et al. (US 6,232,667 B1), Solberg (US 6,313,528 B1), Cilia et al. (US 6,172,879 B1), and Takeshita et al. (US 6,376,917 B1) teach supporting the cap and substrate with particles.

7. Note that: this Application 09/939,362 was searched, in class 257, subclasses 704, 737, 783, 678; class 438, subclasses 106, 121, 125, 613, 118; class 228, subclass 180.22 in view of the limitations of the claimed invention. A full search on EAST (USPAT, US-PGPUB, JP, EP, Derwent, IBM TDB) was done, and no references could be found.

Telephone Inquiry Contacts

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jasmine J. B. Clark whose telephone number is (703) 308-4857.

The examiner can normally be reached on From M-F. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (703) 308-1690. The fax phone numbers for the organization where this

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application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

jjbc/07/19/02

Jasmine J. B. Clark
Jasmine J. B Clark
Primary Examiner
AU 2815